

TEY
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UMENTS



CONTENTS *continued*

Drugs and medicines	Page 929
<i>Lucy M. Kramer</i>	
Occupational health at a university	941
<i>George S. Michaelsen</i>	
Progress in reporting mental hospital statistics. Conference report	945
Treatment of tuberculosis in a general hospital	950
<i>William B. Tucker</i>	
Short reports and announcements:	
New division at National Institutes of Health	875
Fluorescent antibody techniques	884
Bertha Adkins named Under Secretary	894
Tuberculosis casefinding in schools	901
Nursing care for hemiplegic patients	902
Nutrition quiz. Technique	909
National conference on air pollution	914
New members of the PHR Board of Editors	915
Health law center	924
Signs and symptoms	928
Interstate shipment of milk. Legal note	939
International mail pouch	940
CDC courses in environmental health	948
Concepts in the prevention of hepatitis	949
Seminars in dental public health	955
Publications	956



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September 22, 1939

THE EXPERIMENTAL TRANSMISSION OF POLIOMYELITIS TO THE EASTERN COTTON RAT, *SIGMODON HISPIDUS HISPIDUS*

By CHARLES ARMSTRONG, Senior Surgeon, Division of Infectious Diseases, National Institute of Health, United States Public Health Service

Through the courtesy of Dr. Max Peet, of the Department of Surgery, University of Michigan, we received on August 28, 1937, a sample of brain and cord from an 18-year old boy, one of several bulbar cases of poliomyelitis which occurred at Lansing, Mich., during that summer. A strain of virus was recovered from the material which has now been through 15 monkey passages and which clinically, and pathologically as reported by Surgeon R. D. Lillie, is apparently a strain of poliomyelitis. Neutralization tests with this virus have not been done.

On November 8, 1937, several species of rodents, including a cotton rat received through the courtesy of Dr. A. Packhamian, of the National Institute of Health, were inoculated with a fourth monkey passage of the virus. The cotton rat remained apparently well until the twenty-fifth day, when it appeared nervous and tremulous. On the following day it was paralyzed in both hind legs and was sacrificed.

Pathologist R. D. Lillie, who has made all the pathological studies, reported "polioencephalitis." Eleven cotton rats were inoculated with this strain of poliomyelitis virus during the winter of 1938, of which rat No. 8, inoculated on February 14, became paralyzed in both hind legs 29 days later. Brain and cord emulsion was passed to rat No. 13 and symptoms appeared on the sixteenth day. The following day there was paralysis.

SEPTEMBER 22, 1939, pp. 1719-1721

In this paper Dr. Charles Armstrong reported the first successful transfer of the Lansing strain of poliomyelitis to rodents. Later (December 29, 1939, pp. 2302-2305) the strain was passed from the cotton rat to the white mouse.